



FACT SHEET

Missouri Department of Natural Resources



Former Amoco Refinery Sugar Creek, Missouri

May 2000

Introduction

The U. S. Environmental Protection Agency (EPA) Region 7 and the Missouri Department of Natural Resources (MDNR) continue to conduct investigation and cleanup activities at the Former Amoco Refinery. In addition, EPA and MDNR continue to support state and federal health agencies during their investigations of health concerns in the Sugar Creek area. The Former Amoco Refinery is located at 1000 N. Sterling Road in Sugar Creek, Missouri.

Update

EPA and MDNR's primary goal is to identify and address conditions that may present human health or environmental risks. The Agency for Toxic Substances and Disease Registry (ATSDR) and the Missouri Department of Health (MDOH) also are conducting investigations concerning the former refinery. ATSDR has reviewed existing environmental data to evaluate whether current condition might present public health problems. MDOH has been reviewing public health records to determine whether there is a higher incidence of certain types of cancer in the area around the former refinery. EPA and MDNR are supporting these agencies during their investigations by providing background information, analytical data, and gathering additional data needed to

complete their studies.

For example, ATSDR issued a Public Health Assessment for the former refinery in May 1999. In preparing this assessment, ATSDR reviewed environmental monitoring data for the Norledge Area. The Norledge Area is a residential area next to the southern boundary of the former refinery. ATSDR concluded that short-term exposures to benzene and other contaminants at the levels detected in air samples were not likely to result in adverse health effects. However, sufficient data was not available for ATSDR to determine whether environmental contamination posed a longer-term hazard to residents. ATSDR recommended additional long-term air and surface soil sampling to obtain the information needed to evaluate these risks. Based on ATSDR's recommendation, EPA conducted additional indoor air and surface soil sampling at several houses in the Norledge Area.

In March 2000, ATSDR released for public comment an Air Addendum to its Public Health Assessment. This assessment evaluated the results of indoor air sampling conducted by EPA in June, July, and October 1999. Based on this information, ATSDR concluded that there is "no apparent public health hazard" to area residents. EPA

recently completed another series of indoor air sampling and will provide the analytical results for these samples to ATSDR for review when they become available. EPA also will be collecting an additional round of indoor air sampling. EPA conducted residential soil sampling in February 2000. EPA has provided ATSDR the results of its surface soil samples analyses. ATSDR is concurrently preparing a health consultation on this data.

MDOH issued a report on its Level Two Cancer Inquiry Investigation for the area near the former refinery in March 1999. MDOH concluded that there may be an excess of brain cancer incidence in the area near the former refinery over the study period of 1985 to 1997. MDOH recommended that it needed more analytical work, considering data from a wider area, to establish if a true cancer excess or a cancer cluster exists in an enlarged study area. MDOH initiated a Level Three Investigation to gather and evaluate these additional data.

MDOH released its Level Three Investigation Report April 28, 2000, which included a number of conclusions and recommendations. Among the conclusions and recommendations most relevant to EPA's mission of identifying and addressing potential public health hazards at the former refinery are the following:

- While the brain cancer age-adjusted incidence rate for Sugar Creek was higher than that for Jackson and Clay Counties from 1985 to 1992, the incidence rate "significantly decreased in Sugar Creek to a level lower than the two-county area" during the 1993 to 1998 period.
- While the observed number of brain cancer cases in Sugar Creek was higher than expected during the 1985 to 1992 period, "[D]uring the 1993 to

1998 period, the observed number of brain cancer cases was significantly lower than expected."

- Continued monitoring of petroleum-derived environmental contaminants in Sugar Creek is warranted because of the potential public health hazard of these contaminants.

EPA and MDNR are continuing to monitor environmental contaminants of the former refinery. MDNR has conducted odor investigations in the Sugar Creek area due to recent odor complaints. This matter has been referred to MDNR's Air Program for further evaluations into odor and air quality issues. In addition, MDNR is evaluating MTBE (Methyl Tertiary-Butyl Ether) as a possible contaminant of concern associated with the former refinery.

EPA and MDNR will continue to work with ATSDR and MDOH to ensure necessary environmental investigations are promptly addressed.

Additional Information

EPA will be placing copies of each report mentioned in this fact sheet in its information repository, now located at the Sugar Creek Branch Library, 102 S. Sterling Avenue. If you have questions about this fact sheet or need additional information, please contact: Shawntell Crossgrow, Community Involvement Coordinator
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